



Advocacy for brain cancer: The SPORE works closely with the North American Brain Tumor Consortium (NABTC), which provides support through their website and telephone for brain cancer patients and caregivers. NABTC and its components are also active in increasing funding support for research in brain cancer.

Administration: The SPORE is organized through an Administrative Core and guided by an Executive Committee, with input from External and Internal Advisory Committees.

Executive Committee

Brian Patrick O'Neill, M.D.
(Overall Principal Investigator)
Robert B. Jenkins, M.D., Ph.D.
(Overall Co-Principal Investigator)
Jann N. Sarkaria, M.D.
Evanthia Galanis, M.D, DSc
Joseph P. Loftus, Ph.D.
Ping Yang, M.D., Ph.D.
Caterina Giannini, MD., Ph.D.
Karla Ballman, Ph.D.
Jan C. Buckner, M.D.
C. David James, Ph.D.

External Advisory Committee

L. Yancey Gillespie, M.D., Ph.D.
*University of Alabama at Birmingham
Medical Center*
David H. Guttmann, M.D., Ph.D.
Washington University School of Medicine
Melissa Bondy, Ph.D.
MD Anderson Cancer Center
William Weiss, M.D.
University of California, San Francisco
David Schiff, M.D.
University of Virginia

Internal Advisory Committee

Donald Tindall, Ph.D.
Gloria Petersen, Ph.D.
Thomas Witzig, M.D.
Philip Greipp, M.D.
Franklyn G. Prendergast, M.D., Ph.D., *ex officio*

For more information:

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Mayo Clinic SPORE in Brain Cancer



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At a glance . . .

General Summary. The Mayo Clinic SPORE in Brain Cancer will support a multidisciplinary team of basic, clinical, and population science investigators to perform translational research directed at significantly reducing morbidity and mortality from brain cancer. The SPORE reflects the strengths of Mayo Clinic Cancer Center in basic, translational, clinical and clinical trials research in gliomas. The translational research objectives of the SPORE will be directed by a team of 14 investigators from 8 departments across all three Mayo campuses.

Projects: All of our projects have a scientific basis with a translational trajectory.

- **Optimizing EGFR Inhibitor-based Therapies in Glioblastoma** (Project leaders: Jann Sarkaria, M.D., C. David James, Ph.D.). *Dr. Sarkaria* is a radiation oncologist who is interested in the cellular mechanisms of glioma cell radioresistance. *Dr. James* is an experimental pathologist who was among the first to identify that EGFR amplification is common in gliomas and that the amplified EGFR gene is often mutated. Together in *Project 1* they will translate their research interests into novel therapeutics of newly diagnosed malignant astrocytoma.
- **Targeted MV-CEA as a Potent Antitumor Agent against Glioblastoma** (Project leaders: Evanthia Galanis, M.D., Stephen J. Russell, M.D., Ph.D., Corey Raffel, M.D., Ph.D.). *Dr. Galanis* is a medical oncologist who is developing potent therapeutic transgenes utilizing the attenuated measles virus.

Dr. Russell is the head of Molecular Medicine at Mayo and an internationally recognized expert in viral gene therapy of cancer and vascular disorders. *Dr. Raffel* is a neurosurgeon with research and clinical experience in viral gene therapy. Together in *Project 2* they will translate their research interests into novel therapeutics of newly diagnosed malignant astrocytoma.

- **Pyk2 as a Target for Therapeutics in GBM** (Project leaders: Joseph C. Loftus, Ph.D., Joon H. Uhm, M.D.). *Dr. Loftus* is a biochemist interested in the signal transduction mechanisms that underlie cell motility. *Dr. Uhm* is a neurologist who is studying the mechanisms of glioma cell migration and invasion. Together in *Project 3* they will translate their research interests in developing and validating a specific intracellular molecule, Pyk2, and then developing targeted therapeutics of gliomas.
- **Association of Chromosome 19 q-arm Polymorphisms with Glioma Development, Survival, and Response to Therapy** (Project leaders: Ping Yang, M.D., Ph.D., Robert Jenkins, M.D., Ph.D.). *Dr. Yang* is an epidemiologist who is interested in defining patient populations at risk of developing cancer. *Dr. Jenkins* is a molecular geneticist who is interested in genetic mutations in gliomas, especially oligodendroglioma. Together in *Project 4* they are translating their research interests into defining those genes that are associated with oligodendroglioma.

Cores: Five scientific Cores provide support to SPORE investigators

- **Administrative** (Core Directors: Brian Patrick O'Neill, M.D., Robert Jenkins, M.D., Ph.D.)
- **Biostatistics** (Core Director: Karla V. Ballman, Ph.D.)
- **Pathology** (Core Director: Caterina Giannini, M.D., Ph.D.)
- **Xenograft** (Core Director: C. David James, Ph.D.)
- **Clinical** (Core Director: Jan C. Buckner, M.D.)

Developmental Research Program: The SPORE funds one to two pilot research projects annually with \$50,000 awards. Projects must have high translational potential for brain cancer. Projects are selected on a competitive basis following review by the SPORE Executive Committee and the External Advisors.

Career Development Program: The SPORE funds one promising young investigator annually with a \$50,000 award. Projects are selected on a competitive basis following review by the SPORE Executive Committee and the External Advisors.

Education: A digitized brain cancer tutorial course taught by SPORE investigators is available on the Mayo "intranet."